What is claimed is:

1. A non-aqueous solvent-soluble hologram recording material composition comprising (A) an allyl-based prepolymer being soluble in a non-aqueous solvent and having at least one allyl group in a molecule thereof and a molecular weight of 10,000 to 100,000, (B) a (meth)acrylate-based compound having at least one polymerizable unsaturated group in a molecule thereof, and (C) a photo-polymerization initiator, wherein a difference between a refractive index of said allyl-based prepolymer (A) and a refractive index of a polymer of said (meth)acrylate compound (B) is 0.005 or more.

2. A hologram recording material composition as claimed in claim 1, wherein said composition further comprises (D) a solvent-soluble thermoplastic resin in a weight ratio to said allyl-based prepolymer (A), (A) : (D) of 80 to 100 : 20 to 0.

3. A hologram recording material composition as claimed in claim 1, wherein said allyl-based prepolymer (A) is a homopolymer of an allyl-based monomer having at least two allyl groups in a molecule thereof or a copolymer of said allyl-based monomer and another copolymerizable monomer, the copolymer containing a polymeric unit of said allyl-based monomer in an amount of more than 20% (excluding 20%).

4. A hologram recording material composition as claimed in claim 3, wherein said allyl-based monomer is a diallylphthalate-based monomer.

5. A hologram recording material composition as claimed in claim 1, wherein said allyl-based prepolymer (A) is an organic-inorganic

complex transparent uniform material obtained by subjecting a metallic alkoxide having a metallic atom, a group having an aromatic ring, and a hydrolyzable group to dehydration condensation by a sol-gel method in the presence of a diallyl phthalate-based monomer and/or a diallyl phthalate-based polymer.

6. A hologram recording material composition as claimed in claim 1, wherein said allyl-based prepolymer (A) has a thioether group and/or a halogen atom connected to a main chain thereof.

7. A hologram recording material composition as claimed in claim 1, wherein said allyl-based prepolymer (A) is a diallylphthalate-based prepolymer.

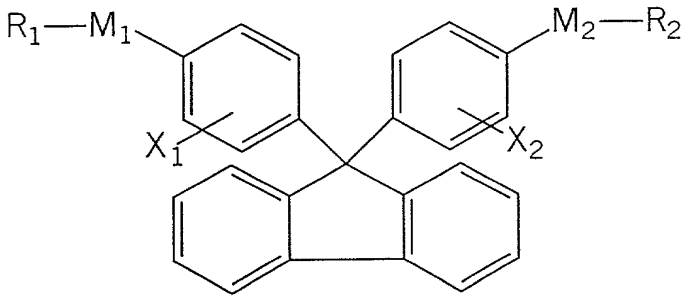
8. A hologram recording material composition as claimed in claim 7, wherein said diallylphthalate-based prepolymer is a prepolymer selected from the group consisting of a diallylorthophthalate prepolymer, a diallylisophthalate prepolymer and a diallylterephthalate prepolymer, or a combination of two or more thereof.

9. A hologram recording material composition as claimed in claim 1, wherein said (meth)acrylate-based compound (B) contains from 1 to 6 of polymerizable unsaturated group, and has a molecular weight of 2,000 or less.

10. A hologram recording material composition as claimed in claim 1, wherein said (meth)acrylate-based compound (B) contains two of polymerizable unsaturated group.

11. A hologram recording material composition as claimed in claim 1, wherein said composition further comprises a viscosity reducing

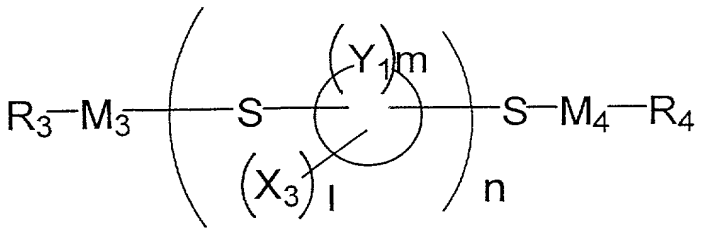
agent (E) and said (meth)acrylate-based compound (B) contains at least one radical polymerizable compound (b1) selected from the group consisting of a fluorene-based compound represented by the general formula [I],



[I]

wherein R_1 and R_2, being the same or different, are monovalent organic groups, at least one of which has a radical polymerizable group at its terminal, M_1 and M_2, being the same or different, are divalent organic groups represented by $-(OR)_{n1}-$ (wherein R is lower alkylene which can have hydroxyl and/or oxygen, and n1 is 0 or an integer of 1 to 5) or single bonds, and X_1 and X_2, being the same or different, are substituents of the rings and are halogen, hydroxyl or lower alkyl,

a sulfide-based cyclic compound represented by the general formula [II],



[II]

wherein R_3 and R_4, being the same or different, are monovalent organic groups, at least one of which has a radical polymerizable group at its terminal, M_3 and M_4, being the same or different, are divalent organic